

$$A_i = \int_a^b l_i(x) dx$$

$$l_i(x) = \prod_{\substack{j=0 \\ j \neq i}}^n \frac{(x-x_j)}{(x_i-x_j)} dx$$

$$A_i = \int_a^b \prod_{\substack{j=0 \\ j \neq i}}^n \frac{(x-x_j)}{(x_i-x_j)} dx$$

se sabe:

$$\begin{aligned} (-) \begin{cases} x = x_0 + h \cdot s \\ x_j = x_0 + h \cdot j \end{cases} \\ \left. \begin{aligned} x - x_j &= h(s-j) \\ dx &= h ds \end{aligned} \right\} d() \end{aligned}$$

$$\begin{aligned} (-) \begin{cases} x_i = x_0 + i h \\ x_j = x_0 + j h \end{cases} \\ \hline x_i - x_j = (i-j) h \end{aligned}$$